What is claimed is:

1.   A method of incorporating, into data of first
information, data of second information, the data of said
first information including a group of data units, said method
comprising the steps of:

selecting at least two of the data units of said first
information and obtaining a data-related value that relates
to respective values of said at least two data units;

selecting, from among a group of the data of said second
information, a particular data segment to be incorporated into
one of the data units of said first information;

generating substitute data to replace a content of the
one data unit of said first information, on the basis of a
predetermined function using, as variables, the data-related
value and a value of the particular data segment; and

replacing a content of the data unit corresponding to a
predetermined one of said at least two data units of said
first information, by the substitute data generated by said
step of generating.

2.   A method as recited in claim 1 wherein said data-related
value is a difference between the respective values of said
at least two data units.

3.   A method as recited in claim 1 wherein said step of

selecting selects two successive ones of the data units of said first information.

4.   A method as recited in claim 1 wherein said step of selecting selects, from among the data units of said first information, a predetermined reference data unit, and a desired data unit into which said data segment of said second information is to be incorporated.

5.   A method as recited in claim 1 wherein said step of generating executes a predetermined arithmetic operation based on the predetermined function.

6.   A method as recited in claim 1 wherein said step of generating refers to a predetermined table based on the predetermined function.

7.   A method as recited in claim 1 wherein said step of generating selects, in accordance with a combination of said data-related value and said value of the particular data segment, a value from among a plurality of values which one of the data units of said first information can take, to thereby generate said substitute data having the selected value.

8.   A method as recited in claim 1 which further comprises

a step of determining whether or not said data-related value meets a predetermined condition, and wherein replacement by the substitute data to incorporate the particular data segment is executed on the data unit for which said data-related value is determined as meeting the predetermined condition but said replacement by the substitute data is not executed on the data unit for which said data-related value is determined as not meeting the predetermined condition.

9.   A method as recited in claim 1 wherein said predetermined function includes evaluating a product between one of the data-related value and the value of the particular data segment and a predetermined constant, and adding the product and another of the data-related value and the value of the particular data segment.

10.   A method as recited in claim 9 wherein the other of the data-related value and the value of the particular data segment is smaller than said predetermined constant.

11.   A method as recited in claim 1 which further comprises a step of setting a predetermined flag value at a predetermined bit in at least one of a plurality of the data units replaced by said substitute data, to identify the replaced data units.

12.   A method as recited in claim 1 wherein said step of selecting includes a step of detecting a particular section of said first information where a difference between values of two successive ones of the data units is smaller than a predetermined value and selecting one of the successive data units as the data unit to be replaced by said substitute data.

13.   A method as recited in claim 1 which further comprises:

a step of storing, in a memory, the data of said first information having said second information incorporated therein via replacement of the content of the data unit by said substitute data;

a step of reading out the data from the memory;

a first reproduction step of reproducing said data-related value and said value of the particular data segment from the data unit of said first information, replaced by said substitute data, included in the data read out from the memory; and

a second reproduction step of reproducing an original content of the replaced data unit on the basis of said data-related value reproduced by said first reproduction step.

14.   A method as recited in claim 1 which further comprises:

a step of transmitting, via a communication network, the data of said first information having said second information

incorporated therein via replacement of the content of the data unit by said substitute data;

a step of receiving data transmitted via the communication network;

a first reproduction step of reproducing said data-related value and said value of the particular data segment from the data unit of said first information, replaced by said substitute data, included in the data received via the communication network; and

a second reproduction step of reproducing an original content of the replaced data unit on the basis of said data-related value reproduced by said first reproduction step.

15. A method as recited in claim 1 which further comprises a step of determining a particular section of said first information, including a multiplicity of the data, into which said second information is to be incorporated.

16. A method as recited in claim 1 which further comprises a step of setting a condition as to a particular section of said first information, including a multiplicity of the data, into which said second information is to be incorporated.

17. A method of reproducing first information having second information incorporated therein, data of said first information including a group of data units, some of the data

units of said first information having values replaced in accordance with contents of said second information, each of the replaced values being obtained via replacement by substitute data generated on the basis of a predetermined function using, as variables, a data-related value that relates to an original value of the corresponding data unit and a value of at least another of the data units and a value of a particular data segment of said second information; said method comprising:

a first step of reproducing said data-related value and said value of the particular data segment from the data units of said first information replaced by said substitute data; and

a second step of reproducing original contents of the data units having the replaced values, on the basis of said data-related value reproduced by said first step.

18.   A method as recited in claim 17 which further comprises a step of displaying contents of said second information on the basis of the particular data segment reproduced by said first step.

19.   An electronic information processing device for incorporating, into data of first information, data of second information, the data of said first information including a group of data units, said electronic information processing

device comprising:

a first section that selects at least two of the data units of said first information and obtains a data-related value that relates to respective values of said at least two data units;

a second section that selects, from among a group of the data of said second information, a particular data segment to be incorporated into one of the data units of said first information;

a third section that generates substitute data to replace a content of the one data unit of said first information, on the basis of a predetermined function using, as variable, the data-related value and a value of the particular data segment; and

a fourth section that replaces a content of the data unit corresponding to a predetermined one of said at least two data units of said first information, by the substitute data generated by said third section.

20. An electronic information processing device for reproducing first information having second information incorporated therein, data of said first information including a group of data units, some of the data units of said first information having values replaced in accordance with contents of said second information, each of the replaced values being obtained via replacement by substitute data generated on the

basis of a predetermined function using, as variables, a data-related value that relates to an original value of the corresponding data unit and a value of at least one of the other data units and a value of a particular data segment of said second information; said electronic information processing device comprising:

a first section that reproduces said data-related value and said value of the particular data segment from the data units of said first information replaced by said substitute data; and

a second section that reproduces original contents of the data units having the replaced values, on the basis of said data-related value reproduced by said first section.

21. A machine-readable recording medium containing a program executable by a computer for incorporating, into data of first information, data of second information, the data of said first information including a group of data units, said program comprising the steps of:

selecting at least two of the data units of said first information and obtaining a data-related value that relates to respective values of said at least two data units;

selecting, from among a group of the data of said second information, a particular data segment to be incorporated into one of the data units of said first information;

generating substitute data to replace a content of the

one data unit of said first information, on the basis of a predetermined function using, as variables, the data-related value and a value of the particular data segment; and

replacing a content of the data unit corresponding to a predetermined one of said at least two data units of said first information, by the substitute data generated by said step of generating.

22. A machine-readable recording medium containing a program executable by a computer for reproducing first information having second information incorporated therein, data of said first information including a group of data units, some of the data units of said first information having values replaced in accordance with contents of said second information, each of the replaced values being obtained via replacement by substitute data generated on the basis of a predetermined function using, as variables, a data-related value that relates to an original value of the corresponding data unit and a value of at least another of the data units and a value of a particular data segment of said second information; said program comprising:

a first step of reproducing said data-related value and said value of the particular data segment from the data units of said first information replaced by said substitute data; and

a second step of reproducing original contents of the

data units having the replaced values, on the basis of said data-related value reproduced by said first step.

23. A machine-readable recording medium containing a multiplicity of data of first information and data of second information smaller in quantity than the data of said first information, the data of said second information being incorporated in the data of said first information in accordance with the method as defined in claim 1.

24. A method of encoding main information, data of said main information including a group of data units, said method comprising:

a first step of incorporating data of encoding information, representative of an encoding procedure, dispersedly into particular ones of the data units belonging to a predetermined first data group of said main information; and

a second step of executing the encoding procedure, represented by said encoding information, on the data belonging to a predetermined second data group of said main information.

25. A method as recited in claim 24 wherein said first step further incorporates predetermined additional information, other than said encoding information, into said first data

group of said main information.

26.   An electronic information processing device for encoding main information, data of said main information including a group of data units, said electronic information processing device comprising:

a first section that incorporates data of encoding information, representative of an encoding procedure, dispersedly into particular ones of the data units belonging to a predetermined first data group of said main information; and

a second section that executes the encoding procedure, represented by said encoding information, on the data belonging to a predetermined second data group of said main information.

27.   A machine-readable recording medium containing a program executable by a computer for encoding main information, data of said main information including a group of data units, said program comprising:

a first step of incorporating data of encoding information, representative of an encoding procedure, dispersedly into particular ones of the data units belonging to a predetermined first data group of said main information; and

· a second step of encoding the data belonging to a

predetermined second data group of said main information through the encoding procedure represented by said encoding information.

28.   A machine-readable recording medium containing data of first information including a group of data units and data of encoding information representative of an encoding procedure, the data of said encoding information being incorporated dispersedly into particular ones of the data units belonging to a predetermined first data group of said main information, the data belonging to a predetermined second data group of said main information being encoded through the encoding procedure represented by said encoding information.

29.   A method of decoding and reproducing encoded main information, data of encoding information being incorporated dispersedly into particular data units in a predetermined first data group of said main information, data belonging to a predetermined second data group of said main information being encoded by an encoding procedure represented by said encoding information, said method comprising:

    a first step of reproducing said encoding information, from said first data group of said main information having said encoding information incorporated therein; and

    a second step of, on the basis of said encoding information reproduced by said first step, decoding the data

belonging to said second data group to thereby reproduce said main information.

30.   A device for decoding and reproducing encoded main information, data of encoding information being incorporated dispersedly into particular data units belonging to a predetermined first data group of said main information, data belonging to a predetermined second data group of said main information being encoded by an encoding procedure represented by said encoding information, said device comprising:

a   first   section   that   reproduces   said   encoding information,   from   said   first   data   group   of   said   main information having said encoding information incorporated therein; and

a second section that, on the basis of said encoding information reproduced by said first section, decodes the data belonging to said second data group to thereby reproduce said main information.

31.   A machine-readable recording medium containing a program executable by a computer for decoding and reproducing encoded main   information,   data   of   encoding   information   being incorporated dispersedly into particular data units belonging to a predetermined first data group of said main information, data belonging to a predetermined second data group of said main   information   being   encoded   by   an   encoding   procedure

represented by said encoding information, said program comprising:

a first step of reproducing said encoding information, from said first data group of said main information having said encoding information incorporated therein; and

a second step of, on the basis of said encoding information reproduced by said first step, decoding the data belonging to said second data group to thereby reproduce said main information.

32. A method of encoding and recording main information, data of said main information including a group of data units, said method comprising:

a first step of incorporating data of encoding information, representative of an encoding procedure, dispersedly into particular ones of the data units belonging to a predetermined first data group of said main information, said first data group of said main information being classified into at least two characteristic groups according to data characteristics thereof, said encoding information being incorporated redundantly into said at least two characteristic groups; and

a second step of encoding data belonging to a predetermined second data group of said main information by the encoding procedure represented by said encoding information.

33.   A method as recited in claim 32 wherein said first step incorporates said encoding information into each of the characteristic groups in accordance with an algorithm unique to said characteristic group.

34.   A method of decoding and reproducing encoded main information, data of encoding information being incorporated dispersedly into particular data units belonging to a predetermined first data group of said main information, said first data group of said main information being classified into at least two characteristic groups according to data characteristics thereof, said encoding information being incorporated redundantly into said at least two characteristic groups, data belonging to a predetermined second data group of said main information being encoded by an encoding procedure represented by said encoding information, said method comprising:

    a first step of reproducing said encoding information from at least one of the characteristic groups of said main information having said encoding information incorporated therein; and

    a second step of, on the basis of said encoding information reproduced by said first step, decoding the data belonging to said second data group to thereby reproduce said main information.

35.   A method of incorporating, into data of first
information, data of second information, the data of said
first information including a group of data units each having
a predetermined plurality of bits, said method comprising:

    a first step of selecting one of the data units of said
first information;

    a second step of selecting, from among a group of the
data of said second information, a particular data segment to
be incorporated into one of the data units of said first
information; and

    a third step of modifying a content of the one data unit
of said first information selected by said first step in
accordance with a predetermined encoding algorithm containing
a value of the data segment selected by said second step as
a parameter, whereby the selected one data unit of said first
information is encoded in accordance with the encoding
algorithm and the value of the data segment of said second
information is incorporated latently into the selected one
data unit.

36.   A method of incorporating, into data of main
information, data of additional information, the data of said
main information including a group of data units each having
a predetermined plurality of bits, said method comprising:

    a first step of selecting one of the data units of said

main information;

a second step of selecting, from among a group of the data of said additional information, a particular data segment to be incorporated into one of the data units of said main information, the data segment tò be selected by said second step having a variable number of bits; and

a third step of modifying a content of the one data unit of said main information selected by said first step in accordance with a predetermined encoding algorithm containing a value of the data segment selected by said second step as a parameter, the encoding algorithm depending on the number of bits of the data segment selected by said second step, whereby the selected one data unit of said main information is encoded in accordance with the encoding algorithm and the value of the data segment of said additional information is incorporated latently into the selected one data unit.

37.   A method of transmitting information comprising:

a first step of providing main information to be transmitted, data of said main information including a group of data units each having a predetermined plurality of bits;

a second step of providing additional information to be incorporated into the data of said main information, said additional information including a plurality of data segments;

a third step of incorporating the data segments of said additional information provided by said second step into

particular ones of the data units of said main information provided by said first step, in accordance with a predetermined encoding algorithm, prior to transmission of said main information; and

a fourth step of transmitting to a communication network said main information having said additional information incorporated therein.

38.   A method as recited in claim 37 where said main information is music performance information and said additional information contains data representative of any one of a text message, still picture, moving picture and sound message.

39.   A method of reproducing main information and additional information from data received via a communication network, data of said main information including a group of data units each having a predetermined plurality of bits, said additional information including a plurality of divided data segments, said main information having the data segments of said additional information incorporated in the data units thereof in accordance with a predetermined encoding algorithm, said method comprising the steps of:

detecting the data units of said main information where the data segments of said additional information are incorporated, from the data received via the communication

network; and

decoding the data units, detected by said step of detecting, in a manner corresponding to the predetermined encoding algorithm and thereby separating and reproducing the data segments of said additional information and the data units of said main information from among the detected data units.

40.   A method as recited in claim 39 which further comprises a step of displaying said additional information reproduced by said step of decoding.

41.   A method as recited in claim 39 where said main information is music performance information and said additional information contains data representative of any one of a text message, still picture, moving picture and sound message.

42.   A device for incorporating, into data of first information, data of second information, the data of said first information including a group of data units each having a predetermined plurality of bits, said device comprising:

a first section that selects one of the data units of said first information;

a second section that selects, from among a group of the data of said second information, a particular data segment to

be incorporated into one of the data units of said first information; and

a third section that modifies a content of the one data unit of said first information selected by said first section in accordance with a predetermined encoding algorithm containing a value of the data segment selected by said second section as a parameter, whereby the selected one data unit of said first information is encoded in accordance with the encoding algorithm and the value of the data segment of said second information is incorporated latently into the selected one data unit.

43.   A device for incorporating, into data of main information, data of additional information, the data of said main information including a group of data units each having a predetermined plurality of bits, said device comprising:

a first section that selects one of the data units of said main information;

a second section that selects, from among a group of the data of said additional information, a particular data segment to be incorporated into one of the data units of said main information, the data segment to be selected by said second section having a variable number of bits; and

a third section that modifies a content of the one data unit of said main information selected by said first section in accordance with a predetermined encoding algorithm

containing a value of the data segment selected by said second section as a parameter, the encoding algorithm depending on the number of bits of the data segment selected by said second section, whereby the selected one data unit of said main information is encoded in accordance with the encoding algorithm and the value of the data segment of said additional information is incorporated latently into the selected one data unit.

44.   A system for transmitting information comprising:

a first section that provides main information to be transmitted, data of said main information including a group of data units each having a predetermined plurality of bits;

a second section that provides additional information to be incorporated into the data of said main information, said additional information including a plurality of data segments;

a third section that incorporates the data segments of said additional information provided by said second section into particular ones of the data units of said main information provided by said first section, in accordance with a predetermined encoding algorithm, prior to transmission of said main information; and

a fourth section that transmits to a communication network said main information having said additional information incorporated therein.

45.   A system for reproducing main information and additional information from data received via a communication network, data of said main information including a group of data units each having a predetermined plurality of bits, said additional information including a plurality of divided data segments, said main information having the data segments of said additional information incorporated in the data units thereof in accordance with a predetermined encoding algorithm, said system comprising:

a detector section that detects the data units of said main information where the data segments of said additional information are incorporated, from the data received via the communication network; and

a decoder section that decodes the data units, detected by said detector section, in a manner corresponding to the predetermined encoding algorithm and thereby separates and reproduces the data segments of said additional information and the data units of said main information from among the detected data units.

46.   A system as recited in claim 45 which further comprises a section that displays said additional information reproduced by said decoder section.

47.   A machine-readable recording medium containing a program executable by a computer for incorporating, into data of first

information, data of second information, the data of said
first information including a group of data units each having
a predetermined plurality of bits, said program comprising:

a first step of selecting one of the data units of said
first information;

a second step of selecting, from among a group of the
data of said second information, a particular data segment to
be incorporated into one of the data units of said first
information; and

a third step of modifying a content of the one data unit
of said first information selected by said first step in
accordance with a predetermined encoding algorithm containing
a value of the data segment selected by said second step as
a parameter, whereby the selected one data unit of said first
information is encoded in accordance with the encoding
algorithm and the value of the data segment of said second
information is incorporated latently into the selected one
data unit.

48. A machine-readable recording medium containing a program
executable by a computer for incorporating, into data of main
information, data of additional information, the data of said
main information including a group of data units each having
a predetermined plurality of bits, said program comprising:

a first step of selecting one of the data units of said
main information;

a second step of selecting, from among a group of the data of said additional information, a particular data segment to be incorporated into one of the data units of said main information, the data segment to be selected by said second step having a variable number of bits; and

a third step of modifying a content of the one data unit of said main information selected by said first step in accordance with a predetermined encoding algorithm containing a value of the data segment selected by said second step as a parameter, the encoding algorithm depending on the number of bits of the data segment selected by said second step, whereby the selected one data unit of said main information is encoded in accordance with the encoding algorithm and the value of the data segment of said additional information is incorporated latently into the selected one data unit.

49.   A machine-readable recording medium containing a program executable by a computer for transmitting information, said program comprising:

a first step of providing main information to be transmitted, data of said main information including a group of data units each having a predetermined plurality of bits;

a second step of providing additional information to be incorporated into the data of said main information, said additional information including a plurality of data segments;

a third step of incorporating the data segments of said

additional information provided by said second step into particular ones of the data units of said main information provided by said first step, in accordance with a predetermined encoding algorithm, prior to transmission of said main information; and

a fourth step of transmitting to a communication network said main information having said additional information incorporated therein.   .

50. A machine-readable recording medium containing a program executable by a computer for reproducing main information and additional information from data received via a communication network, data of said main information including a group of data units each having a predetermined plurality of bits, said additional information including a plurality of divided data segments, said main information having the data segments of said additional information incorporated in the data units thereof in accordance with a predetermined encoding algorithm, said program comprising the steps of:

detecting the data units of said main information where the data segments of said additional information are incorporated, from the data received via the communication network; and

decoding the data units, detected by said step of detecting, in a manner corresponding to the predetermined encoding algorithm and thereby separating and reproducing the

data segments of said additional information and the data units of said main information from among the detected data units.

51. A machine-readable recording medium containing a multiplicity of data of first information and data of second information smaller in quantity than the data of said first information, the data of said first information including a group of data units each having a predetermined plurality of bits, said second information including a plurality of data segments, the data of said additional information being incorporated in the data of said first information in accordance with a method which comprises:

a first step of selecting one of the data units of said first information;

a second step of selecting, from among a group of the data of said second information, a particular data segment to be incorporated into one of the data units of said first information; and

a third step of modifying a content of the one data unit of said first information selected by said first step in accordance with a predetermined encoding algorithm containing a value of the data segment selected by said second step as a parameter, whereby the selected one data unit of said first information is encoded in accordance with the encoding algorithm and the value of the data segment of said second

information is incorporated latently into the selected one data unit.

52.   A method of transmitting music performance information comprising the steps of: `

applying special encoding to a particular portion of the music performance information coded in conventional form; and

transmitting the music performance information after the special encoding,

whereby at a receiving end, only portions, other than the particular portion, of the music performance information coded in conventional form can be reproduced by every person while the particular portion of the music performance information having undergone the special encoding can be reproduced only by an authorized person.

53.   A machine-readable recording medium containing music performance information having predetermined portions coded in   conventional   form   and   another   portion,   than   the predetermined portions, processed by secret, special encoding in such a manner that the predetermined portions of the music performance information coded in conventional form can be reproduced by every person while the other portion of the music performance information having undergone the special encoding can be reproduced only by an authorized person.